

Abstract of the Disclosure

An image processing apparatus, in which an object image focused by a lens is split into a plurality of images by means of a light splitting section. These images are converted into image data items by a plurality of imaging devices which are arranged with their imaging area overlapping in part. The image data items are stored temporarily in an image storing section. A displacement detecting section detects displacement coefficients (rotation angle R and parallel displacement S) from the image signals representing the mutual overlap region of two images which are to be combined and which are represented by two image data items read from the image storing section. The position of any specified pixel of the image displayed is identified by the pixel signal generated by the corresponding pixel of any imaging device. An interpolation section performs interpolation on the pixel values of the imaging device, thereby correcting the values of the other pixels of the image displayed and ultimately generating interpolated image signals. The interpolated image signals are combined with the image signals produced by the imaging device, whereby a display section displays a high-resolution image.